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Manuscripts of articles are welcomed and should be submitted to the Editor. Articles on labor market conditions and the economic welfare of Minnesota workers are preferred, but subjects which can be shown to be closely related to general economic conditions within the State will also be considered. Articles should be submitted complete with tables and graphs. Length generally should not exceed the equivalent of ten single-spaced typewritten pages, including graphs, references, and notes.

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Comments and other correspondence concerning the publication should be addressed to the Editor.

Editor	R. Pinola
Assistant Editor	B. J. Jones
Graphics	R. Daws
Staff	B. Boyle S. Hamper B. Steuernagel

Editorial Comment

BRINGING INTEGRITY TO POVERTY STATISTICS

By R. Pinola

In the last issue of the Review we discussed the need to re-examine the basic philosophy of our unemployment insurance system in reference to changes in social policy and attitudes regarding worker training and investment in human capital. We now consider how, as a society, we define and measure poverty.

When Mollie Orshansky, an economist with the Social Security Administration, proposed the use of an admittedly crude criterion for measuring poverty in 1963, she employed the U.S. Department of Agriculture (USDA) economy food budget for 1961 to develop a threshold money income for counting the Nation's poor. Reduced to bare essentials, Orshansky multiplied the cash or money value of the USDA economy food budget by the reciprocal or inverse of the proportion of after-tax money income that the average family spent on food as established by the USDA's 1955 Survey of Food Consumption. The 1955 survey indicated that the proportion of after-tax income that the average urban family of four (two adults and two children) spent on food was 0.33 or 33 percent. Thus, the reciprocal of 0.33 is 3, and this becomes the multiplier for the USDA economy food budget to arrive at the threshold money income. By way of example, the USDA economy food budget for a family of four in 1961 was estimated at 70 cents a day per person. Translating this into a yearly economy food budget for a family of four, we would have \$0.70 x 4 x 365 = \$1,022. Then multiplying by the factor of 3 referred to above, we obtain a money income poverty threshold of \$3,066 for a family of four.

When President Lyndon Johnson declared the War on Poverty as his major policy objective in 1964, Orshansky's criterion, with some modification, was adopted for making counts of the poor and monitoring its incidence over time. To keep pace with inflation, the threshold money income was to be adjusted by changes in the Consumer Price Index for relevant commodities. Despite some inconsistency in the formulation itself (e.g., a family's before-tax money income was to be compared against the poverty threshold money income based on after-tax income to determine whether a family met the poverty criteria), the criterion became widely used after adjustments for family size and farm versus nonfarm status of families. However, when introduced and used in 1964, the value of in-kind services to the poor were substantially less than they are today. 1/ Consequently, it is questionable whether valid comparisons of poverty today against its incidence in earlier years can be made without valuing in-kind services. Moreover, the Bureau of Labor Statistics (BLS) household expenditure surveys indicate that the proportion of family expenditures on food have declined since the USDA's 1955 Survey of Food Consumption. In short, what we are faced with today is not only the inconsistent features in the formulation itself, but a failure to recognize that in-kind services have become a substantial part of income for many Americans, especially low income Americans.

1/ Between 1965 and 1980, the cost of government transfers for the food, medical, and housing programs alone, rose from roughly \$2.2 billions to \$72.5 billions. Even in constant 1965 dollars, there was in excess of a ten-fold increase (to \$27.7 billions) over the 15 year period. By 1980, over \$2 of every \$3 in means-tested government assistance to the poor was for in-kind food, medical, and housing benefits.

To give an indication of how the inclusion of in-kind services can affect the incidence of poverty in the United States, a recent study by Timothy Smeeding for the Bureau of the Census estimated that if the market value of only in-kind food, medical, and housing services were included as part of income, the 1979 poverty rate would have been 6.4 percent instead of the official rate of 11.1 percent reported by the Census Bureau. There is, of course, considerable disagreement on how best to value in-kind services. Some economists and policy-makers feel that market value should be used, while others contend that a cash equivalent value be established based on an individual's choice between a particular in-kind service and some cash equivalent. It is obvious that the latter approach has a nice theoretical base since it is predicated on the utility maximizing priciple that is the corner stone of consumer welfare theory in economics. However, designing an operationally valid method for incorporating the cash equivalent value of in-kind services is very difficult, if not impossible.

In addition to the two suggested methods noted above, other proponents argue that incorporating the government's cost of providing services would introduce more realism in measuring the value of in-kind services. Still others recommend using the poverty budget share approach in which the value of an in-kind service is no greater than that which is based on the observed consumption levels of people near the poverty threshold. This means that an in-kind service or benefit would be limited to no more than the amounts that are assumed to be part of poverty level expenditures. Thus, if $3,000 was the estimated market value of housing provided to a family near the poverty level, but a poverty level family spends only $1,800 on housing, the value of the in-kind service could not be more than $1,800.

In addition to the valuation problem, the treatment of in-kind services must recognize that not all poor are recipients of such benefits. At present, our data systems are not adequate to make such dichotomous estimates. The Current Population Survey has, since 1979, included additional questions to help address this problem, but it is still inadequate to the task.

Given the disagreement that exists with respect to valuing in-kind service, it becomes quickly evident that their inclusion as income that a family has at its disposal for comparison against the threshold income is a problem for policy makers. Yet the failure to address the issue and make a decision is like burying one's head in the sand and hoping for some miraculous solution to a problem. It is also axiomatic that the failure to address a problem will not preclude bad or worse decisions. While the machinist's rule of "if it isn't broke, don't fix it" applies to much of our social engineering, we should be prepared to recognize a state of disrepair without being beat with a bigger hammer.

Research Summaries

DISCOURAGED WORKERS

By B. Steuernagel

Official statistics on unemployment are among the most widely used indicators of economic and social policy performance. In addition unemployment statistics are frequently used in formulas to allocate federal and state money for job training and economic development programs. One controversial aspect of the official unemployment is the "discouraged worker". These are jobless workers who are not looking for work because they believed that no jobs were available in the area or that no jobs were available for which they could qualify. Because they are not actively seeking work, there are not considered to be in the labor force and are, technically, not unemployed. This article summarizes a special report[1/] done several years ago for the National Commission for Manpower Policy by Dr. Harold Wool. The report summarizes various techniques for estimating the number of discouraged workers and examines the characteristics of this population group.

Two general approaches to measuring discouraged workers are econometric models, such as cross-sectional models and time series analyses, and direct surveys, such as the Current Population Survey (CPS). Cross-sectional models examine the factors affecting interarea variations in labor force participation rates for particular population groups at a single point in time, such as the decennial census. Time series analyses focus more specifically on the relationship between labor force participation and cyclical changes in labor demand, as measured by either employment or unemployment rates, after adjusting for seasonal or long-term trends. With respect to direct surveys, supplementary questions have been included in the CPS since 1967 to gather data on discouraged workers. The reported number of discouraged workers are further classified each quarter based on the more specific reason why he or she feels it is impossible to find a job. These factors are "job market factors" or "personal factors". The following tables show trends in the numbers of discouraged workers from 1970 and characteristics of discouraged workers during the second quarter of 1983.

Table 1 Trends in Discouraged Workers 1970 - 1983

Year	Unemployment Rate	Discouraged Worker Percent 1/	Discouraged Workers (In Thousands) Total	Job Market Factors 2/	Personal Factors 3/
1970	4.9	0.53	638	437	201
1971	5.9	0.63	774	537	236
1972	5.6	0.62	765	540	226
1973	4.9	0.55	679	491	188
1974	5.6	0.51	686	464	222
1975	8.5	0.91	1,082	855	227
1976	7.7	0.67	910	643	267
1977	7.1	0.69	1,010	693	316
1978	6.1	0.55	845	570	275
1979	5.8	0.47	750	500	250
1980	7.1	0.60	970	648	322
1981	7.6	0.74	1,103	808	296
1982	9.7	1.06	1,568	1,181	386
1983 (2Q)	10.0	1.14	1,646	1,290	355

Source: Employment and Earnings, U.S. Department of Labor, Bureau of Labor Statistics

1/ Workers discouraged due to job market factors as a percentage of civilian labor force plus discouraged workers.

2/ Includes those who "had looked but could not find a job" and "think no job is available".

3/ Include those who feel "employers think I'm too young or too old," "I lack education, skills, training," and "I have other personel handicaps".

1/ Discouraged Workers, Potential Workers, and National Employment Policy, A Special Report of the National Commission for Manpower Policy, June 1978.

Table 2 Percentage Distribution of U.S. Civilian Labor Force, Unemployed Workers, and Discouraged Workers, By Sex Race and Age Groups: Second Quarter 1983

Sex, Age, and Race	Civilian Labor Force	Unemployed	Total	Discouraged Workers Job Market Factors	Personal Factors
Total Number (In Thousands)	111,189	11,123	1,646	1,290	355
Percent Distributions:					
Males:	56.7	58.7	40.7	41.1	39.4
16-19	4.0	9.5	7.1	6.2	10.4
20-24	7.8	12.8	8.3	8.8	6.2
25-59	40.8	34.2	18.5	21.6	7.0
60 and over	4.2	2.2	6.9	4.4	16.1
White*	50.0	45.2	30.0	30.3	29.0
Black*	5.4	11.8	9.3	9.6	8.2
Hispanic Origin*	3.3	4.5	3.0	3.1	2.5
Females:	43.3	41.3	59.2	58.9	60.6
16-19	3.5	8.4	7.0	5.7	11.5
20-24	6.6	8.9	8.5	8.6	8.2
25-59	30.3	22.8	36.3	38.6	28.2
60 and over	2.8	1.1	7.4	6.0	12.7
White*	37.0	30.3	42.2	41.7	43.9
Black*	5.1	9.8	15.7	16.2	14.1
Hispanic Origin*	2.2	3.3	6.1	6.1	5.9

Source: Employment and Earnings, U.S. Department of Labor, Bureau of Labor Statistics

* Percentages for race and Hispanic - origin groups will not sum to 100 percent because data for "other races" group are not present and Hispanics are included in both white and black population groups.

There are some similar conclusions and some differences regarding the estimates of discouraged workers from the CPS and econometric models. First of all, with respect to similarities, both methodologies conclude that the number varies directly with the overall level of job opportunity. Also, all of the studies have found that the discouraged worker phenomenon is very largely concentrated among those groups often referred to as secondary workers, such as women, youth, and older persons, as well as minority groups. With regard to differences, the two approaches have resulted in substantially different ranges of estimates of the magnitude and growth of hidden unemployment in recent years. Econometric analyses of the 1970 to 1975 period showed the number of discouraged workers increasing by from 700,000 to 1.7 million, whereas the CPS reported an increase of only 440,000. The CPS data also has shown less sensitivity of particular groups of discouraged workers to changes in labor market conditions than is suggested by empirical studies of actual changes in labor force participation.

Dr. Wool's report points out the need for improving the method for estimating the numbers of "hidden unemployed" so that the universe of persons in need of employment services can be more accurately estimated and that funds can be allocated to target groups in proportion of their actual needs.

The Job Market

MECHANICS

By B.J. Jones

In 1978 there were over 53,000 workers in Minnesota employed as Mechanics. They include Automobile Mechanics; Heavy Equipment Mechanics; Farm Machinery Mechanics; Household Appliance Mechanics; Air Conditioning, Heating, and Refrigeration Mechanics; Aircraft Mechanics, and various other miscellaneous types of Mechanics. The focus of this article will be on the three largest groups of Mechanics which comprise over 75 percent of Minnesota's Mechanics; namely, Automobile, Heavy Equipment, and Farm Machinery Mechanics.

Automobile Mechanics

Automobile Mechanics provide a very important service; whether it is repairing a car after it has broken down or providing routine maintenance in order to keep it running smoothly. The ability to make a quick and accurate diagnosis, one of the Mechanic's most valuable skills, requires good reasoning ability and a thorough knowledge of cars. Many Mechanics consider diagnosing "hard to find" troubles one of their most challenging and satisfying duties. Once the cause of the problem is found, Mechanics make the necessary adjustments or repairs.

Most Automobile Mechanics perform a variety of repairs, others specialize. Some fields of specialty are: automatic transmissions, tune-ups, air conditioning, front-ends, electrical system repair, brakes, and radiators.

Most Automobile Mechanics learn the trade on the job. Beginners usually start as helpers, lubrication workers, or gas station attendants, and gradually acquire skills by working with experienced mechanics. However, a three or four year formal apprenticeship program is recommended. Mechanics are certified in one or more of eight different service areas. General Automobile Mechanics are certified in all eight areas. Certification require two years experience and successful completion of a written examination for each service area.

The 1983 median salary of Automobile Mechanics in Minnesota is $10.91 an hour.1/ This figure is up 27.8 percent from the 1980 figure of $8.54. Median 1983 salaries ranged from a low of $8.50 an hour in Southeast Minnesota to a high of $11.55 an hour in Northeast Minnesota.

Approximately 20,700 persons were employed as Automobile Mechanics in Minnesota in 1978, nearly one half of these workers are in the Twin Cities Metro Area.2/ By 1985, employment is expected to reach 25,400. The number of employed Automobile Mechanics is anticipated to increase at approximately the same rate as total employment in the State. The retirement and death of experienced Mechanics is expected to add another several hundred job openings a year in Minnesota. Additional job openings will occur as employment grows. Most persons who enter the occupation may expect steady work because changes in economic conditions have little effect on the automobile repair business. During a downturn, however, some employers may be more reluctant to hire inexperienced workers.

1/ Source: 1983 Minnesota Salary Survey by Area, Research and Statistical Services Office, Minnesota Department of Economic Security, March 1983

2/ Source: Minnesota Employment Outlook to 1985, Research and Statistical Services Office, Minnesota Department of Economic Security, January 1981.

Heavy Equipment Mechanics

Heavy Equipment Mechanics comprise the second largest groups of Mechanics in the State. They work on both diesel and gasoline engines in trucks, buses, and other large equipment. Many of the Mechanics spend much of their time doing preventive maintenance to assure safe operation, prevent wear and damage to parts, and reduce costly breakdowns. In many shops Mechanics do all kinds of repair work. In some larger shops, however, Mechanics specialize in one or two types of work.

As with Automobile Mechanics, Heavy Equipment Mechanics learn their skills on the job. A four year formal apprenticeship program is also recommended for Heavy Equipment Mechanics. Mechanics may be certified as General Heavy Duty Truck Mechanics or may be certified in one or more of six different areas of heavy duty truck repair

The 1983 median salary of Heavy Equipment Mechanics in Minnesota is $12.13 an hour. This figure is up 25.5 percent from the 1980 figure of $9.67. Median 1983 salaries ranged from a low of $8.00 an hour in Southwest Minnesota to a high of $12.39 an hour in the Twin Cities Area.

Over 15,500 Heavy Equipment Mechanics were working in Minnesota in 1978. The Twin Cities area employed half of the Mechanics. The number of Mechanics is expected to increase at a slightly slower pace than total employment in the State. By 1985, 17,300 persons are projected to be employed as Heavy Equipment Mechanics. The majority of the expected 600 annual job openings will be the result of deaths and retirements of experienced Mechanics.

Farm Machinery Mechanics

Farm equipment has grown enormously in size, complexity, and variety. As farm machinery grew more complex, it became important for the sellers of farm equipment to be able to service and repair the machines they sold. Today almost every dealer employes Farm Equipment Mechanics to perform these services. Mechanics spend much of their time repairing and adjusting malfunctioning equipment that has be brought to the shop, but during planting and harvesting, they may travel to the farm to make emergency repairs. Mechanics also perform preventive maintenance.

Employers generally prefer applicants who have an aptitude for mechanical work and stress previous experience. A farm background is an advantage. With the growing complexity of farm equipment, some employers prefer one to two years of vocational training in agricultural mechanics. Few Farm Machinery Mechanics, however, go through the formal three to four year apprenticeship program.

Over 4,200 workers were employed as Farm Equipment Mechanics in Minnesota in 1978. Employment in this occupation is expected to increase by 21 percent by 1985, topping the 5,100 mark. Job opportunities should be best for applicants who have lived or worked on farms and know how to operate farm machinery and make minor repairs. Due to the complexity of today's farm machinery, farmers will have to rely more on skilled Mechanics in the future. As with most agricutural occupations, the demand for Farm Equipment Mechanics is highest during planting and harvesting seasons. Mechanics may work 60 to 80 hours a week during this time and, in the winter months, less than 40 hours a week or may even be laid off.

SUPPLY/DEMAND FOR SPECIFIC OCCUPATIONS, JULY, 1983[1/]

By S. Hamper

MINNESOTA

Shortage Occupations: computer programmers#, commissioned sales persons#, highly skilled clerical workers#

Surplus Occupations: *factory workers#, general laborers#*

CENTRAL MINNESOTA

Shortage Occupations: computer programmers, commissioned sales persons#, experienced auto mechanics

Surplus Occupations: *welders#, machinists#, machine operators, factory laborers#*

MINNEAPOLIS-ST. PAUL

Shortage Occupations: commissioned sales persons#, experienced computer programmers#, secretaries and highly skilled clerical workers#

Surplus Occupations: *factory workers#, laborers#*

NORTHEASTERN MINNESOTA

Shortage Occupations: none

Surplus Occupations: *entry level managers#, teachers#, social workers#, office clerks#, bookkeepers#, sales clerks#, waiters/waitresses#, cooks#, maids#, food production workers#, welders#, pipefitters#, heavy equipment operators#, maintenance mechanics, auto mechanics#, truck drivers#, carpenters#, bricklayers#, painters#, electricians, millwrights#, mining workers#, construction and general laborers#*

NORTHWESTERN MINNESOTA

Shortage Occupations: engineers, electronic technicians

Surplus Occupations: *production and factory workers#, printing occupations*

SOUTHERN MINNESOTA

Shortage Occupations: commissioned sales persons#, registered nurses#, licensed practical nurses#

Surplus Occupations: *entry level office clerks, factory workers#, general and unskilled laborers#, almost all other occupational classifications are well represented in the active applicant files#*

1/ Shortage occupations are those that are difficult to fill or go unfilled due to the lack of qualified applicants. Surplus occupations are those in which the number of qualified applicants greatly exceeds the number of openings.

This occupation has been listed as a shortage or surplus occupation in at least two out of the last three quarters of the Review.

Feature Article

NEW DATA SYSTEMS TO IMPROVE DECISION-MAKING IN EMPLOYMENT, AREA DEVELOPMENT, AND JOB TRAINING PROGRAMS

By Karl A. Fox*

I. Introduction

The Job Training Partnership Act of 1982 (JTPA) replaces CETA, the Comprehensive Employment and Training Act of 1973. The new act requires state governors to delineate service delivery areas (SDAs) which approximate labor market areas and to appoint a Private Industry Council (PIC) in each such area to review all proposed training programs and advise on planning for the most effective use of training in the SDA.

The editor invited me take a macro view of the prospects for linking economic development and job training programs under the new act, presumably at the SDA or, at most, the state level. On reflection, it seems to me that this linkage focuses too narrowly on efforts to attract "footloose" establishments to one state or area without significantly increasing the level of employment nationally. The various techniques used in interstate competition for "new industry" are already widely known.

Meanwhile, much greater opportunities for high employment and area development are being ignored because we have lacked a conceptual framework within which to recognize and discuss them and a data system with which to measure their changes over time. In these respects, we are as ill-prepared now to deal with the socioeconomic problems of the 1980s as we were in 1929 to deal with the strictly economic surprises we encountered then.

In 1929, when the United States and many other countries began their slides into a disastrous depression, we had no current measures of national income, employment, and unemployment and (therefore) no experience in interpreting their fluctuations. Without such experience, we had no empirical basis for predicting income. And, without the current statistics, we had no yardsticks by which to know conclusively whether things were getting better or worse. When these yardsticks were constructed, we found that unemployment had risen from 3 percent in 1929 to 25 percent in 1933 and that disposable income had decreased by 45 percent in money, and 26 percent in real, terms!

The data, concepts, and empirical relationships that we should have had in or before 1929 to avert disaster came forward with a rush in the late 1930s with Kuznets's (1937) time series on the national income and its components, Keynes's (1936) general theory of business cycles, Leontief's (1936) model of interindustry relations, and Tinbergen's (1939) dynamic model of the U.S. economy. Collectively, these developments led to tremendous improvements in data systems relating to the economy--improvements some of which were still in process through the 1970s. Our current data systems are well-adapted for discussing the economic problems of the 1930s, 1940s, and 1950s, but they are not adequate for addressing the full range of socioeconomic issues that confront us now. For this we need another major wave of innovations comparable to that of the late 1930s.

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* Karl Fox is Professor of Economics at Iowa State University, Ames, Iowa.

In Sections III through VI, I propose a new conceptual framework and data systems which should enable us to "surround" and better comprehend a wide range of socioeconomic problems, including those of full employment and area development. I want to look at these in the context of an SDA which coincides with a labor market area containing (for specificity) about 500,000 residents; the special features of such an area are discussed in Section II, along with preliminary comments on data needs.

Section VII recounts some personal observations of the benefits of full employment during 1942-44 and cites evidence of similar benefits from "full participation" in schools and other organizations. Section VIII outlines procedures for getting started on the proposed new data system.

II. Special Features of an SDA which Coincides with a Labor Market Area, and Preliminary Comments on Data Needs

Figure I shows the SDAs (service delivery areas) in Iowa which have been designated under JTPA. Most of them approximate the home-to-work commuting fields or functional economic areas (FEAs) which I delineated in the early 1960s, each centered on a city of 30,000 population or more. Some of these FEAs extend across state lines, and some counties occupy gaps between FEAs, too far for regular commuting to any such city. To deal with these situations, the Governor of Iowa in 1967 or 1968 delineated the state into 16 multicounty areas which have been used as a basis for field operations by several state agencies. Pragmatic modifications have been made as needed. The 16 SDAs designated under JTPA conform quite closely to the standard delineations and also to the district boundaries of Iowa's 16 Area Community Colleges and Area Vocational Schools. Several SDAs are co-extensive with FEAs, which will be referred to interchangeably as labor market areas.

Since an FEA approximates a home-to-work commuting field, it contains (nearly) all the jobs immediately available to FEA residents and (nearly) all the workers immediately available for FEA jobs. As trips to schools, shopping centers, churches, and other facilities are generally shorter than the journey to work, residents of the FEA spend nearly all of their time in a given year within its boundaries. Nearly all of their face-to-face contracts are with other residents of the area, and nearly all of their social as well as economic roles are performed in it. So far as movements of people during a year are concerned, the area approximates a closed system--a relatively stable economic and social community.

Under JTPA, a broad range of training needs could be addressed in such an area, including those of dislocated workers, economically disadvantaged persons, workers whose jobs have been or will be eliminated, and employed workers seeking to upgrade their skills. Programs could also be conducted for youths, older workers, and the physically handicapped. These programs involve interventions in a social system for which we have neither coherent concepts nor coherent data. They are intended to make residents of the area better off (as are many public and private activities going on simultaneously), but we do not have systematic measures of what "better off" means. If employment in the area increases, we may not be sure of the relative importance of its various possible causes, and we have no way of tracing its social, in addition to its economic, repercussions.

As a matter of fact, great strides have been made since the mid-1960s in conceptualizing and implementing social and demographic data systems, demographic accounts and models, time-use surveys, and time-based social accounts. The latter two approaches combine economic and noneconomic activities. Examples are given in Juster and Land (editors, 1981). The social-indicators movement reached a new level of maturity and consensus with publication of The OECD List of Social Indicators (1982), which is recommended for implementation by its member countries (Australia, Canada, Japan, New Zealand, the United States, and 19 countries of western and southern Europe) as their circumstances permit. All but one or two of the 33 OECD indicators are objective (based on hard, or potentially hard, data), and most of them are based on established data systems of high quality. 1/

Thus, the groundwork has been laid for a new synthesis of data relating to economic and noneconomic activities. Recently published data on stocks of physical capital and consumer durable goods will be important in this synthesis. Concepts from the young discipline of ecological psychology (36 years old and counting) will permit us to classify noneconomic organizations into categories very similar to SIC industries and unpaid roles into categories very similar to occupations in the Dictionary of Occupational Titles.

One feature of the synthesis would be a set of time-use accounts showing for each population subgroup in an area (e.g., white males aged 25-34) the current allocation of its total time between gainful employment and various other categories of activities. Given such an accounts system, we would see that if time spent in gainful employment decreased by a million hours, time spent in the other activities would conversely increase by that amount. We would be forced to recognize that earning a living is only a part of living a life and that all activities in which people engage voluntarily have some value to them. If such data were developed in the form of time series, we should soon become much more sophisticated in evaluating the social consequences of ostensibly economic policies and vice versa.

III. Measures of Socioeconomic Development and Individual Well-Being: The OECD List of Social Indicators (1982)

The OECD List of Social Indicators, published in 1982, resulted from twelve years of cooperative research by statisticians from the United States and 23 other countries (United Kingdom, France, West Germany and others) which are much like us in terms of social, economic, and political institutions, standards of living, and cultural values. These indicators are designed to measure trends in individual well-being over time in any such county; they could be developed and used for these purposes in individual SDAs or labor market areas as well as at the national level.

The 33 OECD indicators relate to eight major social concerns: 1) health; 2) education and learning; 3) employment and quality of working life; 4) time and leisure; 5) command over goods and services; 6) physical environment (housing conditions, accessibility to services, exposure to air pollution and noise); 7) social environment; 8) and personal safety. Several of these indicators are already collected and published in the United States, and the methods and standards for collecting most of the others are well-known. Several indicators would be disaggregated by standard industrial, occupational and educational classifications.

1/ The complete list of indicators are available from the author.

Directly and indirectly, improved performance levels on most indicators in an SDA would require increased resources, increased efficiency, or both. However, a successful full employment policy would not only reduce the unemployment rate (its most obvious target) but would reduce the amount of involuntary part-time work; reduce the number of discouraged workers; reduce the numbers of residents suffering (a) material deprivation and (b) low income; reduce the suicide rate; reduce the numbers of fatal injuries and other serious injuries associated with crime; and reduce fears for personal safety. We have enumerated here nine of the 33 indicators. Full employment (as against slack employment) would almost certainly improve three other indicators relating to housing conditions and, depending upon the output mix emphasized, a number of indicators under the rubrics of health, education, time and leisure, physical environment, and command over goods and services.

In this framework, socioeconomic development and changes in the well-being of SDA residents would be measured by changes in the 33 indicators. The relative weights assigned to different indicators would have to be determined by the area's residents through representative or consultative processes.

Changes in the indicator levels achieved would be outputs of both economic and noneconomic activities. Achievements in education and learning require much more time (in total) from students than from teachers; achievements in life expectancy and health require much more time and effort (in total) from members of the general population than from doctors. All uses of time by all members of the area's population would be reflected in this array of measures of individual well-being. The indicator levels would be produced either as main products or by-products of the various uses of time.

IV. Measures of the Use of Time

Hence, to understand how socioeconomic development in an area might be advanced, we would need estimates of the allocations of time of each relevant population subgroup (defined by combinations of age, sex, and other attributes) among major categories of activities. The four broad categories suggested by OECD are (1) necessary time: sleep, meals, personal hygiene and care; (2) contracted time: paid work, work of family helpers, regular schooling and occupational training (including associated travel time); (3) committed time: house care, care of children, shopping, care and maintenance of possessions, etc. (including associated travel time); and (4) free time: time left in 24 hours after subtracting the other three types of time use.

Illustrative categories of free time activities would include (a) activities involving physical effort: all sports, exercises, walking, cycling, etc. (when chosen as free time activities); (b) creative or artistic activities involving self-expression: art, drama, etc.; (c) cultural and educational activities; and (d) organizational activities: local civic responsibilities and active participation in religious events and in clubs and associations. The categories are not exhaustive.

A comprehensive set of such estimates for the various population subgroups in an area would yield a time-allocation matrix with time-uses as columns and population subgroups as rows; the elements would add up to 500,000 person-years or its equivalent in person-hours in the hypothetical labor market area of our example. The columns could be disaggregated to the level of SIC industries and

analogous categories of noneconomic activities; the rows could be disaggregated to the level of DOT (Dictionary of Occupational Titles) occupations for gainful employment and analogous "quasi-occupations" for various types of unpaid roles. Obviously, various levels and principles of aggregation could be used for different purposes.

If similar matrices were available for the U.S. as a whole or for a number of different labor market areas, the time-allocation rows for particular population subgroups could be compared across areas. Differences between percentages of time spent in gainful employment in different areas by apparently identical population subgroups would be subjects for analysis and interpretation and might lead to some revisions in employment targets and policies in any given area.

V. Measures of Stocks of Physical Capital and Consumer Durable Goods

Nearly all uses of time require physical capital; many require consumer durable goods. As of 1979, the gross value of these stocks (i.e., their value if built or manufactured new) was equivalent to four years' GNP! This figure includes civilian stocks only. The Bureau of Economic Analysis has performed a major service in developing and publishing consistent estimates of such stocks at the national level, annually from 1925 through 1979.

My very rough calculations, from 1979 estimates, suggest that industrial buildings and manufacturing equipment constitute about 10 percent of the total value of all physical capital and consumer durables, compared with 28 percent for residential structures, 4.5 percent for commercial buildings, 3.5 percent for educational, 1.4 percent for hospital and institutional, 1.2 percent for state and local government buildings (except schools and hospitals), and 0.7 percent for religious buildings. These last five categories add up to 11.3 percent of total stocks. Like the residential structures, these buildings would be used almost exclusively by residents of the same labor market area in which they were located. There are also heavy investments in public utilities, sidewalks, streets, and highways, and in automobiles and other consumer durables.

Socioeconomic development in a labor market area depends partly on the efficient use and augmentation of these various types of capital. To understand how improvements in the various indicators might be produced, area residents should have data showing how the different types of physical capital and consumer durables are allocated among the different categories of time use (i.e., the different columns of the area's time-allocation matrix).

VI. Measures of Social (as Well as Economic) Opportunities and Participation

Most economists are completely unaware of the social importance of responsible but unpaid roles. The only systematic data I know of on this subject were collected by Roger G. Barker and his associates: (an example of their data is shown in Table 1). All the "performing roles" in private enterprises and most of those in government-sponsored activities consisted of gainful employment; nearly all the roles sponsored by churches and voluntary associations and most of those sponsored by schools were unpaid. The last three types of organizations provided 87 percent of the total number of responsible roles available in the community during 1963-64! These roles were particularly important to the personal development of children and to the continuing involvement of older persons in community affairs.

Table 1. Person-Hours of Occupancy Time and Numbers of Performing Roles by Town Residents in Specified Types of Organizations, Midwest, Kansas, 1963-64

Type of Organization	Number of behavior settings	Person-hours of occupancy time	Number of performing roles
Private enterprises	132	531,555 1/	439
Government agencies and public facilities	114	186,896 2/	453
Schools	233	310,516 3/	2,149
Churches	193	33,173	1,289
Voluntary associations	212	62,994	2,312
Subtotal, all nonhousehold	884	1,125,134	6,642
Out-commuting and other activities outside the town limits	---	364,536 to 546,804 4/	---
Households	---	5,618,781 to 5,801,049 5/	-----
Total living-time, 830 town residents		7,290,720 6/	

Source: Figures for nonhousehold organizations compiled from various tables in Roger G. Barker and Phil Schoggen, Qualities of Community Life (San Francisco: Jossey-Bass, 1973). Out-Commuting and household figures estimated by Karl Fox.

1/ Includes time of customers, clients and others as well as proprietors and employees.

2/ Includes 87,376 hours spent on the town's public streets and sidewalks. Also, as a county seat town, Midwest had an unusually large array of government offices relative to its own population.

3/ Includes time of spectators at various athletic and cultural events as well as classroom time of students and teachers.

4/ Estimated to 5 to 7.5 percent of total living-time. Barker estimated this component at 5 percent in 1951-52, but it was probably somewhat larger in 1963-64.

5/ Residual.

6/ The survey year included February 29, 1964; hence, 366 days or 8784 person-hours for each town resident.

Collection of information about the number and distribution of opportunities for participation in socially respectd, responsible, and rewarding roles other than gainful employment would have to be initiated on a voluntary basis by community organizations within a labor market area or, more likely, as a matter of self-study by particular communities. Enlargement of such opportunities and changes in their distribution among population subgroups would depend on actions by individual schools, school districts, churches, voluntary associations, and local governments.

Even scattered information about the numbers and distributions of responsible social roles in various communities and organizations would make us more sensitive to the existence of social deprivation even among subgroups whose economic needs are reasonably well met. Full employment in an area's economy has its analog in "full opportunity" and "full participation" in its community organizations. Let us consider the essence of this observation.

VII. The Effects of Full Employment and "Full Participation" on Individual Well-Being and Personal Development

Barker and Gump (1964) found that students in small high schools were involved in many more performing roles per capita than students in large schools; most students in large schools found themselves in the position of spectators watching a few highly trained specialists perform. Barker and Gump concluded that students in small high schools benefited substantially in terms of self-confidence, initiative, responsibility, and feeling of personal worth from the fact that the small schools' activities were "undermanned" relative to those of the large ones.

To say that the activities were undermanned is to say that the students in small high schools were fully employed; they were needed to carry out the schools' agenda. Similarly, many elderly residents of Midwest, Kansas, performed responsible roles in its small churches; in large suburban churches most of them would have been simply loyal, but passive members. Robert Bechtel (1983), in a

recent address on "Ubiquitous Undermanning," cited several examples in which apparent understaffing (in remote military bases, in psychiatric hospitals, and other situations) had similar positive effects on the persons involved.

During the transition from depression to full employment in the United States between 1939 and 1944, some remarkable transformations occurred in the economic situations, personalities, and prestige of large groups of Americans who were "economically disadvantaged" throughout the 1930s. The prime source of their disadvantages is clearly shown in Table 2, which records annual unemployment percentages from 1929 to 1946.

Table 2. Unemployment in the United States, 1929-1946

Year	Percentage Unemployed [1]	Year	Percentage Unemployed
1929	3.2	1938	19.0
1930	8.7	1939	17.2
1931	15.9	1940	14.6
1932	23.6	1941	9.9
1933	24.9	1942	4.7
1934	21.7	1943	1.9
1935	20.1	1944	1.2
1936	16.9	1945	1.9
1937	14.3	1946	3.9

Source: Employment and Earnings 19 (February 1973), Table A-1, P. 27.

[1] Unemployed as percentage of civilian labor force 14 years and over.

Reproduced from Table 1.1, page 9, in Helen Ginsburg Full Employment and Public Policy: The United States and Sweden (Lexington, Mass.: D.C. Heath and Company, 1983).

In California, the middle and late 1930s were years of the "Okies" and "Arkies" -- white farm families displaced from their land in the Southern Plains to become migratory workers in the Central Valley, memorialized by John Steinbeck in his 1939 novel, Grapes of Wrath. Nationally, unemployment ranged from 14 percent to 25 percent during an entire decade. As a young social worker in Salt Lake County (Utah) in 1940, I saw evidences of the beginnings of a white "underclass" without labor market contracts -- children of AFDC mothers who didn't know anyone who had a job and could introduce them to a foreman.

After two years of graduate work at Berkeley, I witnessed the full employment phase as a young economist in the Western Regional Office of the War Food Administration (San Francisco). Farm wage rates had tripled in California's Central Valley from October 1941 to October 1942; the most visible causes were shipyards near San Francisco and aircraft factories near Los Angeles. There was no more talk of Okies and Arkies, and in 1943 a popular song proclaimed that "the hillbillies are Mountain Williams now!" Our neighborhood was not elegant. The movies were in Spanish and the young men wore "Zoot suits", but everybody was working, the Saturday night mood was festive, and the streets were safe. A Polish lady, Grandma Nich, even came out of retirement to help us with housework and child care. . The "economically disadvantaged" were conspicuous by their absence; an indication of what full employment and full participation has on individual well-being and development.

VIII. Getting Started on the New Data System

The data systems I propose would combine ideas from several different research traditions within a new framework. This framework calls for the arrangement and articulation of much data that is already being published; it constitutes an additional use of such data which will not interfere with any existing use.

The 1970 Census of Population published a great deal of data on employment by industry and occupation and by age, sex, education, and other categories. Very detailed cross-classifications are available for metropolitan areas of 250,000 population or more. For less populous areas, multiple regression and other techniques could be used to estimate "typical" or "implicit" cross-

classifications of employment by occupation and industry for towns and counties of different population sizes. Estimates of this type could be aggregated to correspond to the delineations of SDAs or labor market areas.

We know that patterns of employment by occupation and industry in the retail trade, service, school, and local government sectors tend to be much the same in different towns in the same population size class. The various economic censuses, the census of governments, and published data on school enrollments provide information on these sectors for individual towns and counties, and multiple regression or other techniques could be used to estimate "typical" or "expected" values of employment-occupation-industry categories for towns with any given set of published characteristics.

Thus, those elements of a complete time-use matrix which involve gainful employment and school enrollment could be estimated approximately for almost any town or county as of 1970. Other categories of time-use by adults could be approximated on the basis of a survey made by the Survey Research Center (University of Michigan) in 1975-76; strictly speaking, the SRC results are national averages, but they could be used as inital estimates for any subnational area. Time allocations among major SRC categories such as night sleep, housework, child care, shopping, and the like are probably much the same for groups of adults of specified age, sex and marital statuses in most areas. Estimates of time-use, other than school attendance, by children and teenagers could be roughed in on the basis of personal observation or whatever relevant studies may be available.

The resulting time-use matrix extimated for any particular town or area would be analogous to a ready-made suit; if additional tailoring were required, it would have to be done locally. For a county of 10,000 population, the estimated matrix would allocate 10,000 person-years among time-uses and population subgroups. Time-uses involving gainful employment would be further disaggregated to the level of SIC industries: and time spent by each population subgroup working in an SIC industry would be disaggregated (prorated) to the level of DOT occupations. (SIC industries and DOT occupations could be disaggregated to different level for different purposes).

Other rough-and-ready methods would have to be used to adapt national estimates of stocks of buildings, other structures, equipment, and consumer durables to the perceived situation in any particular area to allocate these stock estimates among the various categories of time-use in that area. Further crude carpentry would be involved (at the outset) in estimating or assembling 1970 values of the various OECD indicators applicable to the area and of coefficients expressing changes in indicator levels as functions of changes in the amount of time and/or physical capital devoted to each SIC industry or other category of time use.

Other data problems would involve the selection of published time series with which to approximate the movements of the variables involved in the 1970 cross-section for any area on a yearly basis from 1970 to 1979. An independent cross-section estimate could presumably be based on 1980 census and other data.

In the further elaboration of time-use estimates, I believe that Roger Barker's concept of "behavior settings" will prove particularly useful. Explanations of this concept and its uses are given in Fox and Ghosh (1980), Wicker (1979), Barker and Schoggen (1973), and Barker and Associates (1978).

The proposed rough-and ready 1970 matrices for particular towns, counties, and labor market areas could serve as starting-points for independent experimentation, modification and development of the new data systems by research groups in many different states. These data systems are user-oriented rather than

discipline-oriented. Regional scientists and others who work in multidisciplinary contexts or as members of multidisciplinary teams are perhaps best equipped for their development, at least during the early, exploratory years. In advance of any endorsement at the national level, many different approaches to data collection, classification, and policy analysis could be tried in the various states and areas--some of them as aids to self-studies initiated by local communities.

After several years of such varied explorations, we should be able to design employment, development, job training and other programs at the SDA level with considerable confidence--and to specify the ongoing data systems needed to justify that confidence.

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Brief Analysis Of Economic Conditions

THE NATIONAL AND STATE ECONOMIES AT MID-YEAR

By B. Boyle

Nation

Although there were some declines in a few of the economic indicators in June and July, key barometers of economic activity showed that the recovery that began in December was becoming very robust. The National Bureau of Economic Research, the official designator of peaks and troughs of recessions, has declared that the recent recession ended in November 1982.

The best evidence that the upturn was becoming very strong was the 9.2 percent jump in real Gross National Product for the second quarter. Also, there was a sharp drop in the unemployment rate in July together with further large gains in total and nonfarm payroll employment. The seasonally adjusted unemployment rate fell below 10 percent for the first time since July 1982, while both seasonally adjusted total employment and nonfarm payroll employment rose by about a half million each in July. Since December, payroll employment has risen by 1.7 million. Meanwhile, industrial production climbed for the eighth consecutive month in July. The July gain of 1.8 percent was the biggest since a 1.9 percent advance in April and was due to sharp rises in the production of steel and automobiles.

Despite strength represented by the indicators noted above, retail sales and new orders for durable goods fell in July for the first time since February while housing starts declined for the second straight month in July. Also, personal income and consumer spending grew rather modestly in both June and July. Most economists, however, were not alarmed by these declines and slowdowns, contending that the earlier sharp gains could not be sustained and that a slower rate of growth in the economy would hold down prices and interest rates.

State

Even with some improvement in the unemployment rate and total employment in July, the Minnesota economy is still quite flat compared to that of the Nation. Also, nonagricultural wage and salary employment has yet to show much strength, especially in the cyclically sensitive durable goods manufacturing sector.

The State's seasonally unadjusted unemployment rate which, on average, drops 0.3 of a percentage point between June and July fell by 0.5 of a percentage point this year. However, the July 1983 rate was still somewhat above the year earlier rate. Total employment, also unadjusted, showed some strength in July as it rose by 0.9 percent, much stronger than the average decline of 0.3 percent that occurs between June and July. On the other hand, seasonally adjusted nonfarm payroll employment rose by only 0.1 percent in July, after a fractional decline in June and only a 1.1 percent increase since December. The largest numerical gains in payroll employment since December were in the trade and services industries while the most rapid advances were in mining and construction. In contrast, employment in durable goods manufacturing has increased by only 1,100 or 0.6 percent since December.

Other economic indicators for the State in the first quarter and July showed a mixed picture. Both housing permits and retail sales had strong over-the-year gains during the first six months of 1983. However, even though average weekly initial claims for unemployment benefits have declined almost steadily during 1983, a significant part of their decline may have been due to unemployed persons losing their eligibility for benefits.

Forecasts

FORECASTS OF GNP AND MINNESOTA PAYROLL EMPLOYMENT

By C. Cline

The table below presents forecasted values for the next eight quarters, beginning with the third quarter, 1983. These forecasts include revised data for the second quarter for all series as well as revised estimates of real GNP for all quarters beginning with the first quarter of 1980 as imputs into these forecasts.

Actual estimates for the second quarter are also presented. Regular readers can compare these with the forecasted values for the same quarter published in the August issue of the Review.

In the last issue we suggested discounting our forecasts since they were quite optimistic compared with previous recoveries. However, the economy expanded at a rate faster than that forecast. The annual rate of growth of real GNP, based on second quarter performance, was initially set at 8.7 percent and then revised upward by BEA. We also underforecast total wage and salary employment as well as that in the Construction, Manufacturing, and Transportation, Communications, and Public Utilities Industries. The time period during which total Minnesota wage and salary employment is forecasted to attain its previous high, that of Winter, 1979, advanced. Based on the present forecasts we expect total employment to regain a value of 1,803,000 sometime during the later second or early third quarter of 1984.

Quarter	Real GNP (Billions of 1972 Dollars)	MINNESOTA PAYROLL EMPLOYMENT, BY QUARTER (In Thousands)								
		Total Nonagricultural Wage & Salary	Mining	Contract Construction	Manufacturing	Transportation, Communications, & Public Utilities	Retail and Wholesale Trade	Finance, Insurance, & Real Estate	Services	Government
CURRENT										
1983-II	1523.40	1702.37	9.53	58.02	334.68	93.59	429.93	98.26	387.96	290.42
FORECAST										
1983-III	1555.49	1715.58	10.56	68.48	348.00	92.81	433.78	99.60	392.20	265.97
1983-IV	1586.92	1744.68	10.88	65.37	342.70	96.47	439.69	99.31	397.13	286.72
1984-I	1616.31	1716.29	10.71	50.14	340.75	95.02	429.62	99.69	395.10	287.96
1984-II	1644.99	1788.55	12.27	63.99	350.94	97.16	451.87	102.05	403.94	289.03
1984-III	1673.19	1820.82	12.60	76.39	370.67	97.90	456.19	103.88	415.32	267.08
1984-IV	1699.35	1859.14	12.04	73.26	368.96	101.75	465.32	104.00	422.86	286.93
1985-I	1723.65	1828.50	11.32	55.89	363.06	99.94	456.39	104.48	421.55	288.93
1985-II	1746.62	1905.00	12.64	70.97	379.12	102.50	479.77	107.02	438.85	289.47

Notes

1. These forecasts are produced using the Vector Autoregression model developed for Research by Rao Aiyagari.
2. The concept of employment forecasted is that of Nonagricultural Wage and Salary employment. The count represents the number of jobs held since the data is generated from a survey of employer payroll records. Groups included in labor force employment, but excluded here are the self employed, domestics, unpaid family workers, employees of nonprofit institutions, and those government workers not covered by unemployment insurance.
3. Employment forecasts are seasonally unadjusted values. Real GNP is seasonally adjusted.
4. Forecasts of major industry employment do not sum to the forecast of total wage and salary employment. This is due to random error in the forecasted values.
5. There is great diversity in the accuracy of our forecasts among the major industry division. More information on their accuracy can be obtained from the author on request.

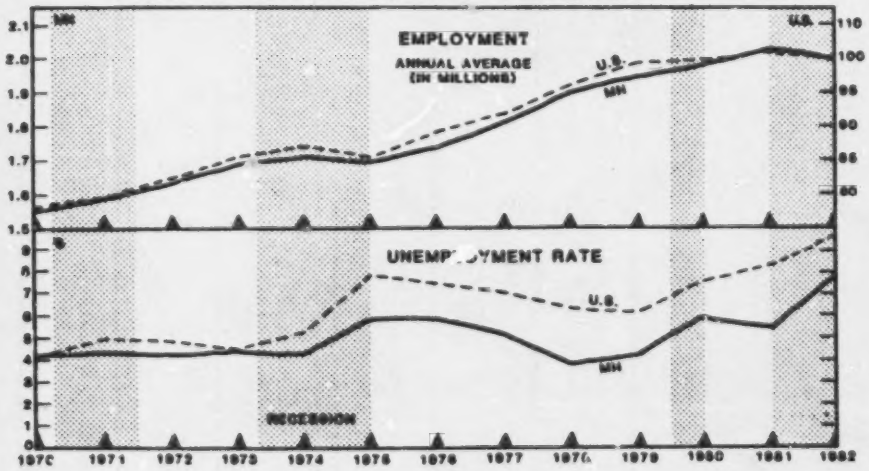
Labor Force Statistics

Labor Force Estimates	MINNESOTA (Numbers in '000's)			UNITED STATES (Numbers in '000,000's)		
	July 1983	Change From Last Mo.	Change From Year Ago	July 1983	Change From Last Mo.	Change From Year Ago
Civilian Labor Force	2202.4	6.0	-18.1	114.0	0.6	1.5
Employed	2037.5	17.8	-5.4	103.3	1.5	1.8
Unemployed	164.9	-11.8	-12.7	10.7	-0.9	-0.3
Unemployment Rate						
Actual	7.5	-0.5	-0.5	9.4	-0.8	-0.4
Seasonally Adjusted	n.a	n.a	n.a	9.5	-0.5	-0.6

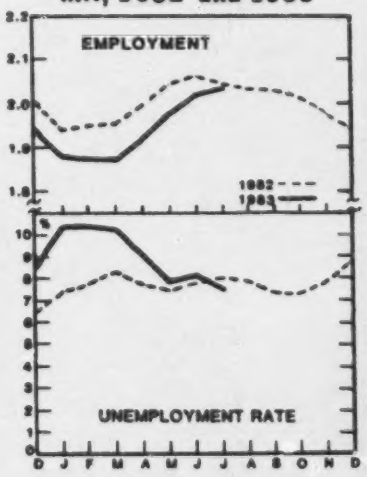
Historical Labor Force Series

Year	Minnesota (Annual Average in '000's)				United States (Annual Average in '000,000's)			
	Labor Force	Employment	Unemployment Number	Unemployment Rate	Labor Force	Employment	Unemployment Number	Unemployment Rate
1970	1625.0	1557.0	68.0	4.2	82.8	78.7	4.1	4.9
1971	1665.0	1593.0	73.0	4.4	84.4	79.4	5.0	5.9
1972	1709.0	1635.0	73.0	4.3	87.0	82.2	4.9	5.6
1973	1774.0	1694.0	80.0	4.5	89.4	85.1	4.4	4.9
1974	1779.0	1701.0	77.0	4.3	91.9	86.8	5.2	5.6
1975	1804.0	1697.0	107.0	5.9	93.8	85.8	7.9	8.5
1976	1849.0	1739.0	109.0	5.9	96.2	88.8	7.4	7.7
1977	1907.0	1809.0	97.0	5.1	99.0	92.0	7.0	7.1
1978	1979.0	1903.0	75.0	3.8	102.3	96.0	6.2	6.1
1979	2038.0	1953.0	85.0	4.2	105.0	98.8	6.1	5.8
1980	2109.0	1984.0	125.0	5.9	106.9	99.3	7.6	7.1
1981	2153.0	2034.0	119.0	5.5	108.7	100.4	8.3	7.6
1982	2166.0	1997.0	169.0	7.8	110.2	99.5	10.7	9.7

MN and the U.S., Employment & Unemployment Rate



MN, 1982 and 1983



S-2

Labor Market Conditions

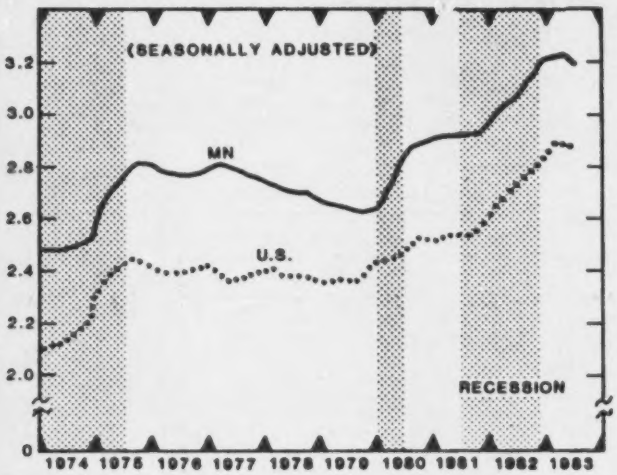
The table and graphs in this section describe the behavior of the market for labor services in terms of its quantity, price, and supply. The quantity of labor services, which is the number of employed persons, is classified by industry. The price of labor services is roughly indicated by the industry wage. Unemployment estimates provide a qualified measure of excess labor supply. The degree to which persons participate in the labor market and the effectiveness of the market in utilizing labor services are indicated by Labor Force Estimates and by Other Rates of Labor Utilization.

Labor Force And Establishment Data	MINNESOTA (Numbers in '000's)			UNITED STATES (Numbers in '000's)		
	II Qtr 1983	Percent Change From		II Qtr 1983	Percent Change From	
		Last Qtr	Year Ago		Last Qtr	Year Ago
LABOR FORCE ESTIMATES						
Total Labor Force	2153.1	2.7	-2.4	111189	1.3	1.0
Employment	1974.2	5.0	-3.0	100065	2.6	0.2
Nonagriculatural	n.a	n.a	n.a	96058	2.0	0.2
Agriculatural	n.a	n.a	n.a	3558	21.9	0.9
Unemployment	178.9	-17.1	5.8	11123	-9.3	8.3
By Reason - New Reentrants-%*	n.a	n.a	n.a	33.3	-2.5	-1.2
By Reason - Quit-%*	n.a	n.a	n.a	7.1	-6.6	-14.5
By Reason - Lost-%*	n.a	n.a	n.a	59.5	-0.7	2.6
Unemployment Rates						
Actual	8.3	-19.4	7.8	10.0	-10.7	7.5
Seasonally Adjusted	n.a	n.a	n.a	10.1	-1 9	7.4
OTHER RATES OF LABOR UTILIZATION						
Participation Rt (Labor Force/Population 16+)	n.a	n.a	n.a	63.9	0.3	-0.2
Full Employment Deficit - Percent of Workers1/	4.3	6.3	3.7	6.0	7.2	5.3
Manpower Utilization Rate2/	81.6	0.6	0.2	79.9	1.0	-0.4
NONAGRICULTURAL WAGE AND SALARIED POSITIONS						
Employment*	1692.7	0.4	-1.5	89426	0.7	-0.6
Mining	9.5	15.9	-19.5	1001	-1.8	-15.0
Construction	58.3	4.3	-3.2	3865	1.3	-2.1
Manufacturing	336.6	0.2	-3.7	18474	1.2	-3.0
Durables	198.8	0.5	-4.8	10767	1.5	-4.5
Nondurables	137.8	-0.2	-1.9	7707	0.8	-1.0
Trans., Comm., & Public Utilities	93.3	-0.1	-1.1	4992	0.5	-2.3
Trade	428.2	0.7	-1.1	20380	0.2	-0.3
Fin., Ins., & Real Estate	98.0	-0.2	-0.4	5435	1.0	1.9
Services	385.6	0.5	1.4	19585	1.6	3.0
Government	283.2	-0.6	-2.5	15694	-0.3	-1.0
Average Weekly Hours*						
Mining	31.7	-10.7	-15.0	42.2	0.7	-1.4
Construction	35.9	-2.4	-2.7	37.4	3.3	0.5
Manufacturing	39.1	-1.0	-0.5	40.0	1.3	2.3
Durables	39.8	-1.0	-0.7	40.5	1.5	2.5
Nondurables	38.3	-0.8	0.3	39.4	1.3	2.3
Trans., Comm., & Public Utilities	38.1	-0.3	-1.3	38.9	0.5	-0.5
Trade	30.0	0.7	2.4	31.9	0.6	0.0
Fin., Ins., & Real Estate	n.a	n.a	n.a	36.1	-0.3	-0.3
Services	n.a	n.a	n.a	32.8	0.3	0.6
Average Hourly Wage						
Mining	11.89	-8.3	-11.2	11.27	0.4	5.6
Construction	14.67	-1.7	2.4	11.80	-1.4	3.1
Manufacturing	9.54	0.6	5.1	8.79	0.7	3.9
Durables	9.56	1.1	6.2	9.34	0.5	3.7
Nondurables	9.51	0.0	3.6	8.03	0.5	4.7
Trans., Comm., & Public Utilities	10.97	3.1	7.3	10.72	0.3	5.4
Trade	7.26	0.0	5.7	6.46	0.5	4.5
Fin., Ins., & Real Estate	n.a	n.a	n.a	7.26	0.8	8.4
Services	n.a	n.a	n.a	7.20	0.3	5.4
Estimates of Labor Turnover (Mfg. Only)	Estimates of Labor Turnover have been discontinued as of January 1, 1982.					

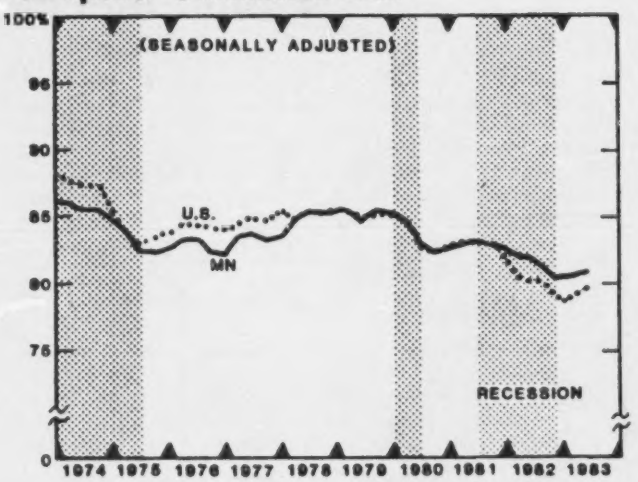
a/ Values are numerical values, not percent changes.

Labor Market Conditions

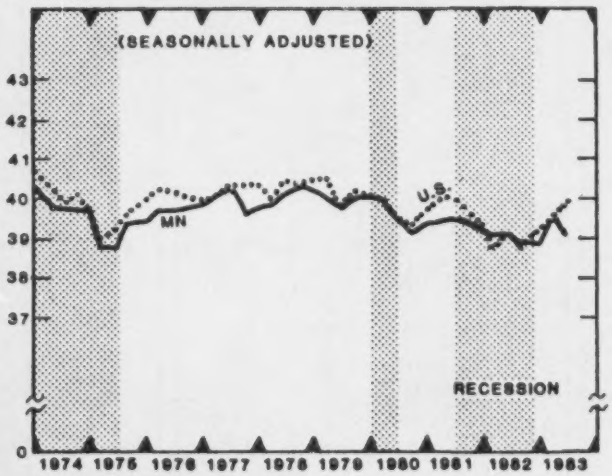
Ratio of Service to Goods Producing Jobs



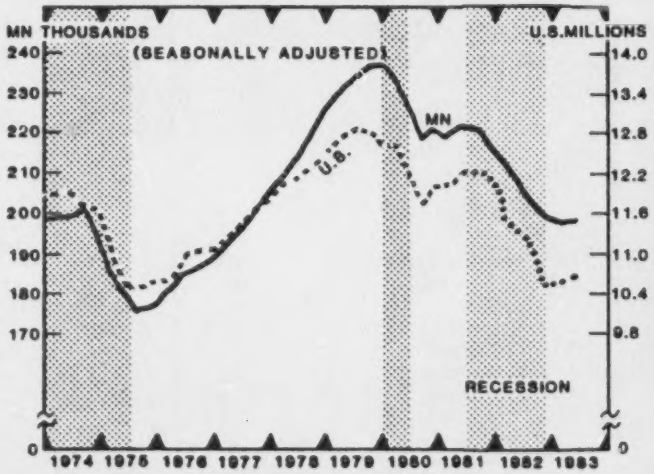
Manpower Utilization Rate



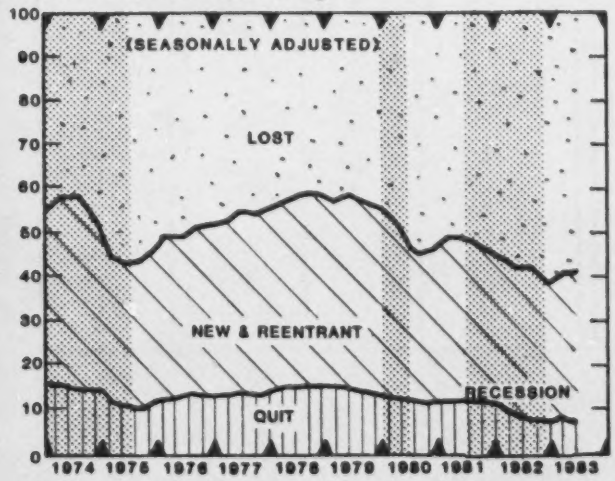
Average Weekly Hours, Manufacturing



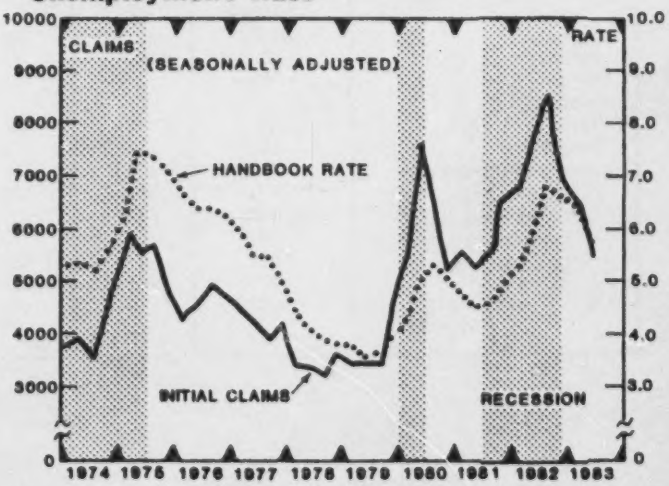
Manufacturing Employment, Durable Goods



U.S. Unemployment: Percent Distribution by Reason



MN Weekly Initial Claims & Handbook Unemployment Rate [1]



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Labor Market Conditions

The Table below provides data on persons who file claims for unemployment compensation in Minnesota. Only those claiming benefits from the regular State program are represented, since data on the characteristics of Federal employees and veterans are not available, and data on those receiving benefits from extended programs is reported only when those programs are in effect. If those receiving extended benefits were included they would distort the numerical comparisons over time, but would not substantially change the percentage distributions other than to increase the proportion of long-term unemployed.

Persons Claiming Benefits	Second Quarter 1983			July 1983			Percent Long Term
	Number	Percent Change From		Number	Percent Change From		
		Last Qtr.	Year Ago		Month Ago	Year Ago	
By Age & Sex							
Male	33609	-46.0	-24.2	21199	-11.8	-48.8	27.4
Under 45	25964	-46.7	-27.2	16081	-12.3	-50.8	27.1
Under 25	6581	-51.8	-42.6	3824	-14.7	-55.5	26.7
25-34	12997	-45.2	-22.6	7900	-12.3	-51.7	27.9
35-44	6386	-43.6	-13.8	4357	-10.0	-43.5	26.1
45 and Over	7645	-43.5	-12.0	5118	-10.0	-41.4	28.4
45-54	4234	-45.1	-14.0	2777	-11.4	-43.7	25.2
55 and Over	3411	-41.4	-9.3	2341	-8.2	-38.5	32.1
Female	14723	-25.6	-22.8	13995	-4.0	-37.9	25.3
Under 45	10806	-26.0	-25.4	10179	-4.8	-39.6	24.3
Under 25	2762	-36.5	-36.9	2343	-8.1	-46.4	24.0
25-34	4875	-22.9	-21.7	4621	-5.0	-38.3	25.2
35-44	3169	-19.3	-18.3	3215	-2.0	-35.7	23.2
45 and Over	3917	-24.4	-14.5	3816	-1.7	-32.9	28.2
45-54	2180	-23.9	-16.8	2141	-1.7	-35.1	25.9
55 and Over	1737	-24.9	-11.4	1675	-1.6	-29.7	31.1
By Industry	48332	-41.1	-23.8	35194	-8.8	-45.0	26.6
Ag., For., Fish.	709	-67.9	-9.0	339	-5.8	-27.7	19.4
Mining	1548	-65.2	-59.1	1272	19.1	-84.2	3.0
Construction	9702	-55.8	-22.5	3635	-19.4	-42.3	24.9
Manufacturing	14040	-38.5	-33.6	9407	-18.0	-55.2	30.0
Pub. Utilities	2491	-29.0	-23.0	1965	-7.9	-27.3	30.4
Wholesale Trade	3518	-34.3	-11.9	2641	-8.0	-31.0	32.4
Retail Trade	6245	-27.7	-5.0	5382	-3.3	-13.1	35.5
Fin., Ins., Real Est.	1172	-20.5	-15.4	1054	-3.2	-22.2	31.6
Services	7433	-20.7	-14.3	8280	-0.3	-35.2	19.3
Public Admin.	714	-51.3	-26.2	612	4.8	-23.6	23.9
Inf. Not Available	760	-4.2	120.9	607	-5.0	25.4	5.4
By Occupation	48332	-41.1	-23.8	35194	-8.8	-45.0	26.6
Prof., Tech., Mgr.	6280	-15.7	-9.0	6940	0.8	-33.2	23.7
Clerical	5220	-20.7	-14.2	5043	0.2	-27.3	30.4
Sales	1965	-23.5	-8.0	1685	-5.4	-21.6	39.1
Services	3458	-30.6	-13.8	3165	-3.1	-26.5	27.3
Farm., For., Fish.	550	-69.4	-15.4	230	-9.4	-25.6	22.4
Processing	2815	-22.5	-24.8	1703	-43.6	-47.9	20.6
Machine Trade	3337	-38.7	-31.3	2264	-12.5	-56.3	31.6
Benchwork	4001	-44.8	-43.4	2870	-7.2	-61.7	23.8
Structural Work	11561	-54.4	-25.3	5090	-17.3	-45.3	25.7
Misc.	8554	-48.7	-30.7	5654	-5.9	-60.8	24.8
Inf. Not Available	591	128.2	241.6	550	7.4	188.0	32.9
By Duration	48332	-41.1	-23.8	35194	-8.8	-45.0	
0-14 Weeks	32892	-49.3	-27.5	25833	-8.1	-48.5	
15+ Weeks (Long-Term)	15440	-9.8	-14.6	9361	-10.8	-32.2	

Labor Market Conditions

Minnesota Nonagricultural Wage & Salary Employment, Hours, and Earnings

INDUSTRY	EMPLOYMENT 1/ (thousands)			PER CENT CHANGE FROM		PRODUCTION WORKERS' HOURS & EARNINGS					
						Average Weekly Earnings		Average Hourly Earnings		Average Weekly Hours	
	July 1983	June 1983	July 1982	June 1983	July 1982	July 1983	June 1983	July 1983	June 1983	July 1983	June 1983
TOTAL NONAGRICULTURAL	1699.8	1720.8	1699.4	-1.2	0						
MANUFACTURING	340.7	337.7	348.0	0.9	-2.1	375.09	377.67	9.52	9.61	39.4	39.3
Durable Goods	199.1	199.9	205.8	-0.4	-3.3	383.20	387.13	9.58	9.63	40.0	40.2
Furniture, Lumber and Wood	14.2	13.9	14.0	2.0	1.3	393.00	398.58	10.00	10.22	39.3	39.0
Stone, Clay and Glass	8.5	8.4	8.9	0.6	-5.0	369.40	365.77	9.57	9.55	38.6	38.3
Primary Metals	4.7	4.7	5.2	0.9	-9.6	337.81	347.69	8.82	8.78	38.3	39.6
Fabricated Metals	32.7	32.5	32.6	0.8	0.3	433.78	434.25	10.58	10.54	41.0	41.2
Nonelectrical Machinery	76.4	76.4	80.1	-0.1	-4.6	392.62	393.78	9.84	9.82	39.9	40.1
Electrical Machinery	26.1	26.2	26.5	-0.6	-1.6	350.10	350.10	8.56	8.56	40.9	40.9
Transportation Equipment	4.8	5.9	6.0	-19.4	-20.4	354.37	424.56	9.04	10.33	39.2	41.1
Other Durable Goods 2/	31.8	31.7	32.5	0	-2.2	359.39	359.39	9.03	9.03	39.8	39.8
Nondurable Goods	141.6	137.9	142.2	2.7	-0.4	363.44	365.57	9.44	9.57	38.5	38.2
Food and Kindred	48.8	44.7	48.5	9.1	0.7	327.79	332.61	8.47	8.73	38.7	38.1
Textile and Apparel	4.7	4.5	4.9	3.0	-4.5	225.16	223.48	6.22	6.26	36.2	35.7
Paper and Allied	32.6	32.6	32.9	0	-1.0	458.58	456.46	10.64	10.64	43.1	42.9
Printing and Publishing	34.8	35.2	35.5	-1.2	-1.8	355.69	356.04	10.37	10.35	34.3	34.4
Chemical and Petroleum	9.4	9.5	9.2	-0.4	2.7	421.69	424.67	10.73	10.67	39.3	39.8
Rubber and Leather	11.3	11.3	11.2	-0.3	0.6	305.25	302.78	8.14	8.25	37.5	36.7
NONMANUFACTURING	1359.0	1383.1	1351.4	-1.7	0.6						
Mining and Quarrying	10.4	9.8	7.7	5.6	35.1	429.09	428.03	12.19	12.16	35.2	35.2
Metal Mining	8.0	7.6	5.5	5.6	45.6	423.14	423.47	13.06	13.07	32.4	32.4
Construction	69.3	66.0	67.7	4.9	2.3	575.20	555.12	14.38	14.57	40.0	38.1
Building	18.6	17.6	18.2	5.7	2.2	511.29	514.46	13.11	13.61	39.0	37.8
Highway and Heavy	15.2	14.4	13.7	5.6	11.2	555.41	519.58	12.37	12.49	44.9	41.6
Special Trades	35.5	34.1	35.9	4.2	-1.0	618.46	593.29	16.19	16.21	38.2	36.6
Transportation	58.3	60.2	58.8	-3.2	-0.7						
Railroads	13.2	13.4	13.7	-1.5	-3.8	527.85	527.85	11.50	11.50	45.9	45.9
Trucking and Warehousing	22.8	23.3	23.0	-2.2	-1.0	419.48	422.82	11.62	11.68	36.1	36.2
Public Utilities	33.1	33.1	34.4	-0.1	-3.9	490.37	482.69	12.29	12.22	39.9	39.5
Communications	18.9	19.0	19.9	-0.3	-5.0	446.40	445.27	11.33	11.33	39.4	39.3
Elec., Gas and Sanitary	14.1	14.1	14.5	0.1	-2.4	538.94	525.36	13.34	13.20	40.4	39.8
Trade	435.5	436.9	434.2	-0.3	0.3	226.19	222.16	7.32	7.26	30.9	30.6
Retail	322.9	325.0	320.6	-0.6	0.7	178.98	178.01	6.28	6.29	28.5	28.3
General Merchandise	42.8	43.4	44.0	-1.5	-2.7	168.48	172.87	5.85	5.88	28.8	29.4
Food Stores	46.9	46.8	45.7	0.4	2.6	211.10	211.52	7.33	7.37	28.8	28.7
Automotive	34.5	34.7	34.2	-0.5	1.0	271.87	270.62	7.68	7.71	35.4	35.1
Eating and Drinking	109.6	110.5	108.9	-0.8	0.6	109.26	108.81	4.61	4.65	23.7	23.4
Wholesale	112.6	111.9	113.7	0.7	-0.9	388.83	377.12	9.97	9.77	39.0	38.6
F.I.R.E.	98.9	98.9	99.1	0	-0.2						
Finance	47.2	47.1	46.2	0.3	2.2						
Insurance	35.2	35.3	35.9	-0.4	-2.0						
Real Estate	16.5	16.5	17.0	0.1	-3.0						
Service Industries	390.8	390.1	383.2	0.2	2.0						
Hotel and Lodging	22.7	22.4	22.8	1.3	-0.4						
Business Services	58.4	57.9	56.6	0.9	3.3						
Health Services	135.6	135.4	133.2	0.1	1.8						
Private Education	18.5	19.2	18.3	-3.6	1.1						
Soc. Serv., Museums etc.	84.1	83.3	82.3	1.0	2.2						
Government	262.8	288.0	266.2	-8.8	-1.3						
Federal	29.9	30.0	30.5	-0.4	-2.1						
State	62.1	68.3	60.4	-9.0	2.9						
Local	170.7	189.7	175.3	-10.0	-2.6						

1/ Totals may not add because of rounding.
2/ Includes Scientific Instruments and Miscellaneous Industries.

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Labor Market Conditions

Labor Force Data: State, SMSAs, and Counties

Area or County	July 1983 Prelim. Labor Force 1/	Unemp.	Un. Rate
State of Minnesota	2202409	164900	7.5
Metropolitan Areas			
Duluth/Superior (Duluth City Only)	37114	4751	12.8
Fargo/Moorhead (Clay County, MN Only)	28096	2260	8.0
Minneapolis/St. Paul SMSA 2/	1166974	76034	6.5
Rochester SMSA (Olmsted Co.)	60909	3160	5.2
St. Cloud SMSA 3/	79479	6906	8.7
Counties			
Aitkin	5889	848	14.4
Anoka	111343	8066	7.2
Becker	13230	1452	11.0
Beltrami	16443	1346	8.2
Benton	12230	1034	8.5
Big Stone	4248	255	6.0
Blue Earth	29333	1842	6.3
Brown	16414	1103	6.7
Carlton	12040	1409	11.7
Carver	20657	1136	5.5
Cass	11470	1118	9.7
Chippewa	7793	551	7.1
Chisago	14548	997	6.9
Clay	28096	2260	8.0
Clearwater	4274	635	14.9
Cook	2467	249	10.1
Cottonwood	8063	607	7.5
Crow Wing	18203	1799	9.9
Dakota	108834	6552	6.0
Dodge	9288	677	7.3
Douglas	14553	977	6.7
Faribault	11976	693	5.8
Fillmore	13414	875	6.5
Freeborn	18767	1438	7.9
Goodhue	20407	1465	7.2
Grant	3839	210	5.5
Hennepin	530496	34442	6.5
Houston	10599	567	5.3
Hubbard	6350	788	12.4
Isanti	10442	950	9.1
Itasca	18461	2574	13.9
Jackson	8563	561	6.6
Kanabec	5705	648	11.4
Kandiyohi	19191	1346	7.0
Kittson	3872	315	8.1
Koochiching	7625	764	10.0
Lac qui Parle	6416	355	5.5
Lake	4718	1646	34.9
Lake of the Woods	2037	158	7.8
Le Sueur	13655	1079	7.9
Lincoln	4362	202	4.6
Lyon	15541	867	5.6
McLeod	18707	1283	6.9
Mahnomen	3137	309	9.7
Marshall	6956	816	11.7
Martin	14815	976	6.6
Meeker	12166	1155	9.5
Mille Lacs	9351	879	9.4
Morrison	12849	1371	10.7
Mower	18479	1294	7.0
Murray	6911	409	5.9
Nicollet	14989	833	5.6
Nobles	12634	659	5.2
Norman	5134	296	5.8
Olmsted	60909	3160	5.2
Otter Tail	26302	1992	7.6
Pennington	6587	588	8.9
Pine	10373	993	9.6
Pipestone	6064	310	5.1
Polk	16325	1741	10.7
Pope	6139	426	6.9
Ramsey	259613	17341	6.7
Red Lake	2365	330	16.1
Redwood	11499	632	5.5
Renville	12915	1137	8.8
Rice	24047	1657	6.9
Rock	6307	271	4.3
Roseau	6166	481	7.8
St. Louis (Inc. Duluth)	91521	14031	15.3
Scott	24588	1517	6.2
Sherburne	14640	1345	9.2
Sibley	8831	559	6.3
Stearns	52607	4525	8.6
Steele	17355	1208	7.0
Stevens	6224	296	4.8
Swift	7079	606	8.6
Todd	12977	1014	7.8
Traverse	3123	181	5.8
Wabasha	10288	677	6.6
Wadena	5953	653	11.0
Waseca	9543	661	6.9
Washington	63485	3641	5.7
Watonwan	7030	517	7.4
Wilkin	4891	341	7.0
Winona	22742	2048	9.0
Wright	33410	2342	7.0
Yellow Medicine	8479	436	5.1

Technical Notes:

1/ Labor force data is computed according to BLS methodology. The method includes an adjustment to assure that the sum of the substate areas equals the separately estimated State total. This adjustment is Applied to all county and SMSA areas. County and area unemployment was multiplied by an adjustment factor of 1.62; employment was multiplied by 1.02. For a more detailed explanation see the Review of Labor and Economic Conditions, Vol. 4, No. 4, (February 1978 issue), p. 29.

2/ Anoka, Carver, Chisago, Dakota, Hennepin, Ramsey, Scott, Washington, and Wright Counties.

3/ Benton, Sherburne, and Stearns Counties.

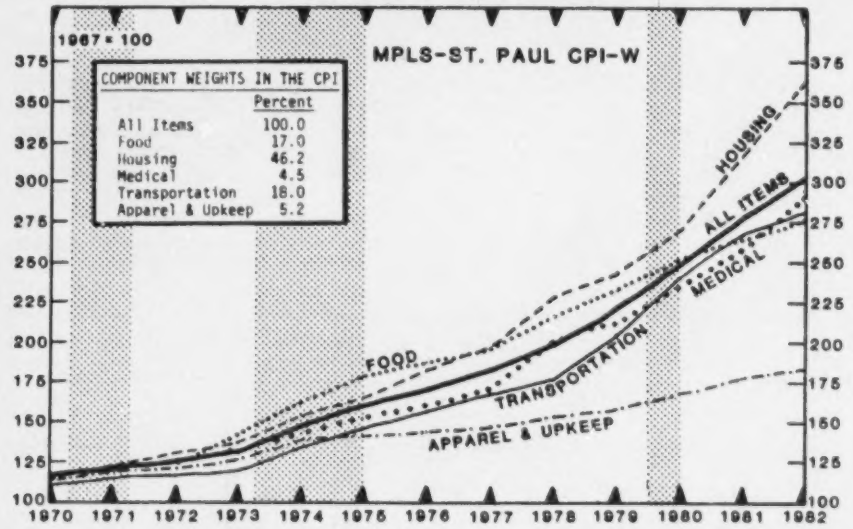
Income & Purchasing Power

This section describes how Minnesotans fare with respect to their ability to acquire goods and services needed to meet their needs and wants and how they compare with others in the United States in this respect. Real Per Capita Personal Income measures money income received by all individuals from wages and salaries, dividends, rent, professional and farm income, personal interest payments, and transfer payments, less personal contributions for social security, all adjusted for the price level as indicated by the CPI and for population. The Consumer Price Index (CPI) measures changes in the price of a representative combination of goods and services consumed by urban wage and salary workers relative to 1967. The inverse of the CPI (1/CPI) indicates the value of the dollar; when the CPI increases the value of the dollar falls. The change in the CPI over any period of time divided by the value at the beginning of the period gives the percentage change, or the rate of inflation.

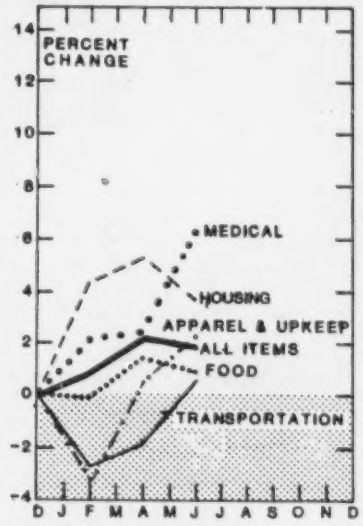
Income And Purchasing Power	MINNESOTA			UNITED STATES		
	II Qtr 1983	Percent Change from		II Qtr 1983	Percent Change from	
		Last Qtr.	Year Ago		Last Qtr.	Year Ago
INCOME STATISTICS						
Personal Income 1/*						
Total Personal Income (in Billions)	48.6	0.2	2.3	2715.0	2.2	5.9
Due to Labor 2/	n.a	n.a	n.a	1819.7	78.0	66.2
Due to Property 3/	n.a	n.a	n.a	610.9	17.8	12.8
Due to Transfer Payments 4/	n.a	n.a	n.a	403.0	7.9	25.6
Total Disposable Personal Income	n.a	n.a	n.a	2302.8	2.1	6.7
As Percent of Total Pers. Inc.	n.a	n.a	n.a	84.8	-0.1	0.7
Per Capita Personal Income 5/						
Current dollar Value	11679	0.1	1.6	11608	1.9	4.9
Real (1967) Dollar Value	3742	-0.8	-1.5	3920	0.7	1.6
Real Median Family Money Income 5/*						
All Families	8677	-0.8	-1.4	8745	0.5	1.4
Four Person Families	9022	-0.7	-1.2	10193	0.6	1.4
Earnings of Production Workers in Mfg. 6/						
Average Weekly Earnings	371.75	-0.6	4.7	351.47	2.7	6.5
Real Average Weekly Earnings 7/	119.11	-1.6	1.5	118.70	1.4	3.2
Income Related Criteria 8/						
Standard Budgets						
Low						
Moderate						
High						
Poverty Level Income						
Urban Family of Four	9300	---	10.1	9300	---	10.1
Nonurban Family of Four	7910	---	10.0	7910	---	10.0
MEASURES OF PRICE CHANGE AND INFLATION						
Consumer Price Level (CPI) 9/	312.1	1.0	3.2	296.1	1.2	3.2
Food	295.1	1.2	3.5	292.3	1.0	2.2
Housing	369.9	0.5	2.3	321.3	1.1	2.5
Transportation	280.2	1.5	1.7	296.9	1.9	2.9
Medical	316.2	2.4	11.0	352.2	1.2	9.2
Purchasing Power of the Dollar (1/CPI)	.32	-1.2	-3.3	.34	-1.2	-3.2
Wholesale Price Index	n.a	n.a	n.a	301.7	0.4	1.0
Industrial Commodities	n.a	n.a	n.a	313.9	0.1	1.3

Income & Purchasing Power

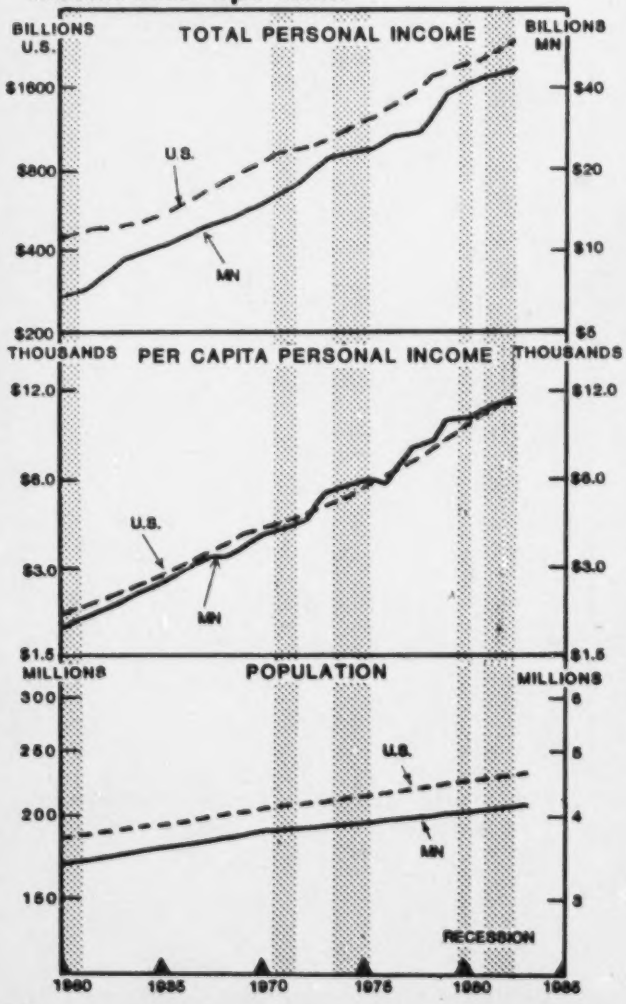
Consumer Price Index- Major Components



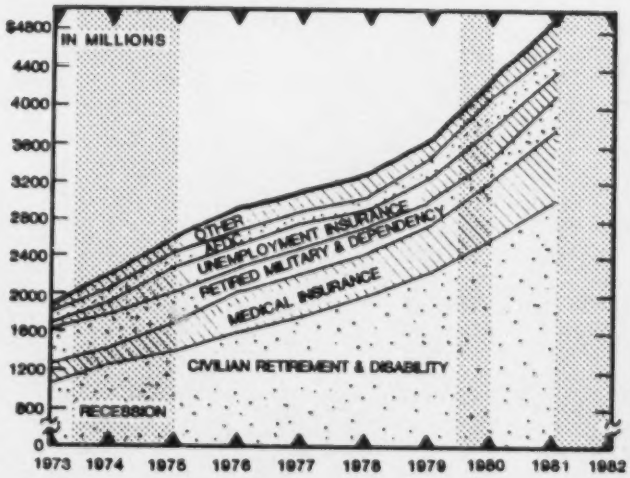
% △ From Dec. 1982



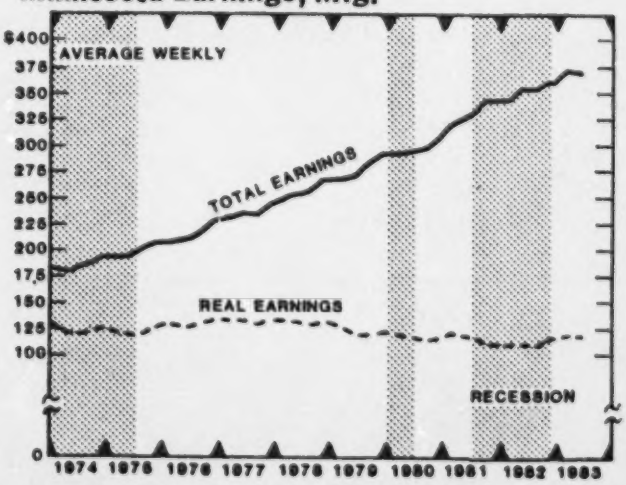
U.S. & MN Personal Income And Population



Government Transfer Payments To Individuals In Minnesota



Minnesota Earnings, Mfg.



Output, Expenditures, Money, & Credit Conditions

The overall level and composition of National Output shape labor market conditions, and nominal and real earnings. (Nominal values are not adjusted for inflation; real values are adjusted for inflation.) Personal Consumption Expenditures, especially on Durable Goods, together with data on Retail Sales, are frequently used as indicators of future levels of employment. The number of Building Permits influences the level of employment in construction and related industries. The Federal Budget Deficit is a key indicator of the stimulatory effect of government policy. Whether this effect results in inflation, improved employment conditions, or some combination of the two, depends in part, upon the degree to which present productive capacity is utilized. Present and anticipated Money and Credit Conditions determine the ability of consumers, business, and State and Local governments to borrow in order to finance purchases, which, in turn, generate income and employment. Unfortunately, most data of this kind is available only for the Nation. However, in an economy as interdependent as ours, analysis of the directions of change of key national indicators is a useful tool for understanding the course of the State economy.

Output, Expenditure, Money, And Credit Conditions	MINNESOTA			UNITED STATES		
	II Qtr. 1983	Percent Change from		II Qtr. 1983	Percent Change from	
		Last Qtr.	Year Ago		Last Qtr.	Year Ago
OUTPUT AND EXPENDITURE						
Retail Sales (in millions of dollars)	1841	3.1	12.3	97664	5.9	9.4
Private Housing Units Authorized by Building Permits 1/	28668	1.0	68.3	1644	12.3	79.1
Index of Industrial Production 2/	n.a	n.a	n.a	144.3	4.2	3.5
Gross National Product (in billions of 1972 dollars) 3/*	n.a	n.a	n.a	1521.4	2.1	2.2
Personal Consumption Expenditures	n.a	n.a	n.a	1010.5	2.4	4.3
Durable Goods	n.a	n.a	n.a	156.4	7.3	12.1
As Percent of Pers. Cons.	n.a	n.a	n.a	15.5	4.7	7.6
Nondurable Goods	n.a	n.a	n.a	374.3	1.5	3.0
Services	n.a	n.a	n.a	479.8	1.7	3.0
Gross Private Domestic Investment	n.a	n.a	n.a	208.5	9.7	3.5
As Percent of GNP	n.a	n.a	n.a	13.7	7.0	1.5
Nonresidential, Fixed	n.a	n.a	n.a	161.8	1.2	-3.2
Residential	n.a	n.a	n.a	51.2	12.5	35.4
Net Exports	n.a	n.a	n.a	10.2	-50.2	-69.5
Government Purchases	n.a	n.a	n.a	292.2	-0.2	2.2
Federal	n.a	n.a	n.a	118.2	-0.2	7.2
State and Local	n.a	n.a	n.a	174.0	-0.3	-0.8
GNP Gap (Full Empl. Minus Present GNP)						
1972 Dollars (in billions)	n.a	n.a	n.a	162.1	-10.4	11.6
Current Dollars (in billions)	n.a	n.a	n.a	348.7	-9.5	16.5
Current Federal Budget Deficit 4/						
As Percent of GNP	n.a	n.a	n.a	-5.0	-5.8	-3.7
Inventory to Sales: Durable Goods in Mfg.	n.a	n.a	n.a	2.05	-6.4	-12.0
New Orders to Shipments: Durable Goods	n.a	n.a	n.a	1.03	1.0	6.2
Plant Capacity Utilization Rate in Mfg. 5/	n.a	n.a	n.a	73.7	4.2	2.9
MONEY AND CREDIT CONDITIONS						
Interest Rates						
Discount Rate	8.50	0.0	-29.?	8.50	0.0	-29.2
Prime Rate	n.a	n.a	n.a	10.50	-3.5	-36.4
Rate on Conventional Mortgages	12.72	-4.9	-11.1	12.74	-4.6	-19.8
Federal Funds Rate	n.a	n.a	n.a	8.80	1.7	-39.4
Consumer Installment Credit Outstanding	n.a	n.a	n.a	348316	1.8	5.6
As Percent of Disposable Personal Income	n.a	n.a	n.a	15.1	-0.2	-1.0

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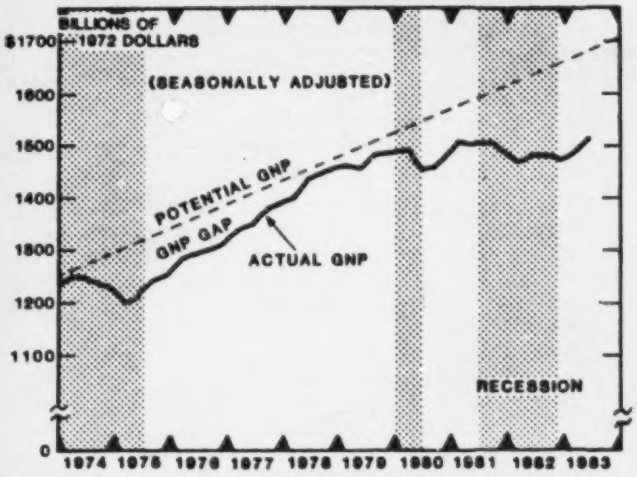
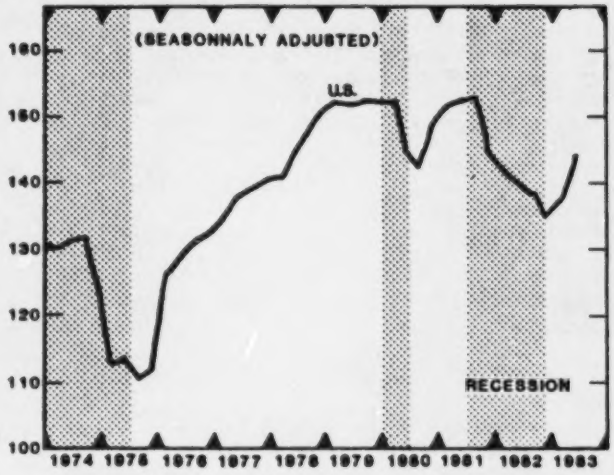
Output, Expenditures, Money, & Credit Conditions

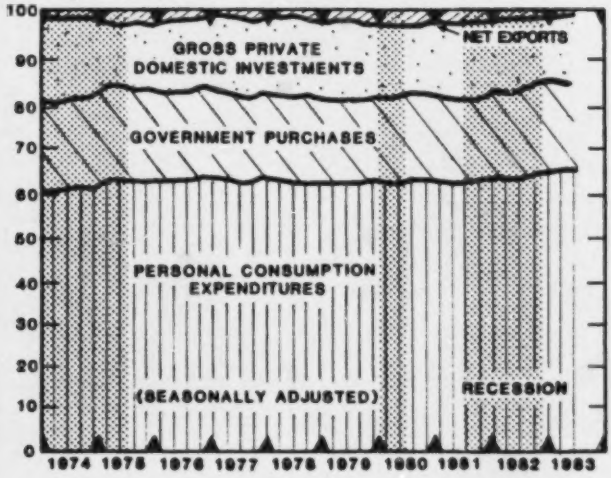
Potential & Seasonally Adjusted GNP



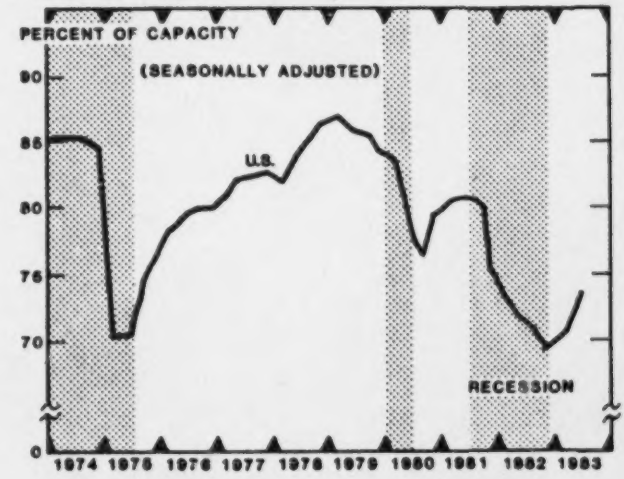
Index of Industrial Production



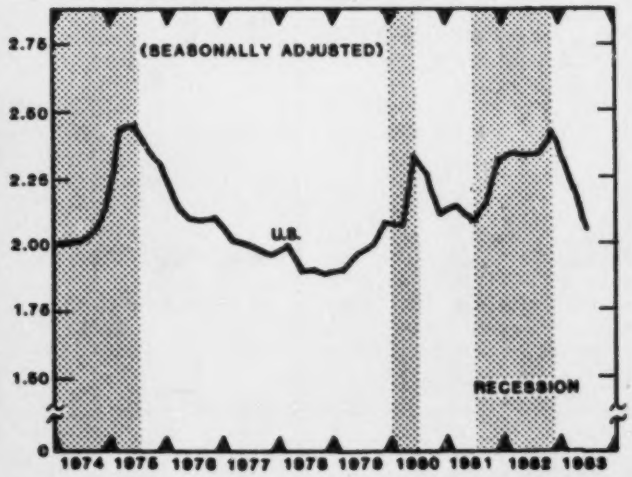
Composition of GNP in Percent



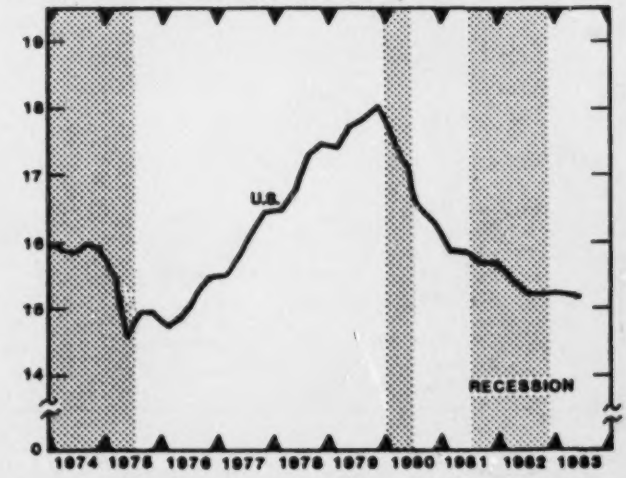
Plant Utilization Rates, Mfg.



Ratio, Inventory to Sales, Durable Mfg.



Ratio, Consumer Installment Debt to Disposable Personal Income, U.S.



Technical Notes

For the reader's convenience the notes which follow are organized in sequence for the pages which appear in the statistical section. Each note corresponds to the footnote or reference notation for the given page.

* Wherever an asterisk appears the data is seasonally adjusted.

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1/ Four percent is a generally agreed upon criteria for measuring full employment. It allows for the movement of persons between jobs. Labor Force Unemployment Rate less four percent, based on official estimates.
2/ Estimated worker hours expended in nonfarm payroll employment as a percent of potential worker hours assuming that each member of the nonfarm labor payroll labor force was employed at a standard rate of 40 hours per week.

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1/ The handbook unemployment rate is the estimate of unemployment prior to the Current Population Survey (CPS) adjustment.

Page S-7

1/ In billions of dollars at an annual rate.
2/ The contribution to total Personal Income of wages, salaries, and other labor income. Percent change entry in Labor Income Impact is the percent that the change in labor income comprises of the change in total Personal Income. This is not available for Minnesota on a quarterly basis.
3/ The figure for the quarter is the contribution to total Personal Income of proprietor's rental, dividend, and interest income. The percent change entry in Property Income Impact is analogous to the Labor Income Impact described in 2/ above.
4/ The contribution to total Personal Income of transfer payments (unemployment compensation, AFDC, etc.) The percent change entry is analogous to the Labor Income Impact in 2/ above.
5/ In dollars at an annual rate.
6/ In dollars per week.
7/ Real average weekly earnings are the average weekly earnings of production workers in manufacturing divided by the CPI.
8/ Annual data.
9/ Value is CPI-W (Urban Wage earners and clerical workers).

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1/ U.S. data annualized in thousands. Source: Bureau of the Census.
2/ Base Year is 1967. Source: Federal Reserve Board.
3/ Totals may not add due to rounding.
4/ Values shown in percent change columns are deficit as percent of GNP for period citied.
5/ Source: Federal Reserve Board.

Available Publications

Nonagricultural Wage & Salary Employment, Hours & Earnings, January 1975 - February 1983, Minnesota (May 1983)

Employment, Hours, and Earnings, January 1970-February 1983, Minneapolis-St. Paul Area (April 1983)

1980 Occupational Employment Statistics in Minnesota (May 1982)

1981 Occupational Employment Statistics in Minnesota (November 1982)

Important Minnesota Occupations by Industry (January 1983)

Minnesota Employment Outlook to 1985 (January 1983)

Minneapolis-St. Paul SMSA Employment Outlook to 1985 (March 1982)

Review of Labor and Economic Conditions and its Monthly Supplement (Recent Issues)

Statistical Supplement to the Annual Report of the Department of Economic Security (September 1981)

Unemployment Compensation Program Statistics: Total Wages, Taxable Wages, Contributions Due, and Benefits Paid, 1950-1978 (April 1980)

Minnesota Employment and Wage data by County (Fourth Quarter 1982) Limited number available for 1975-1981

Average Covered Employment & Wages by Economic Region for the Calendar Year 1982 by two Digits of Industry (also available for 1976-1981)

Occupational Hiring Patterns in Minnesota (October 1981)

Characteristics of Unemployment Insurance Claimants, 1981 (March 1982)

The Economic Outlook for 1983 (February 1983)

Minnesota Labor Market Information Directory (April 1982)

1983 Minnesota Salary Survey by Area (September 1983)

1983 Minnesota Hospitals and Nursing Homes Salary Survey (September 1983)

1983 Minnesota Wage Data by Industry and Size of Firm (September 1983)

Labor Market Information Summary for 1983 for Minneapolis-St. Paul SMSA (August 1983) and St. Cloud SMSA (August 1983)

These publications are available upon request while supply lasts.

Write to: Director, Research and Statistical Services Office
Minnesota Department of Economic Security
390 North Robert Street
St. Paul, Minnesota 55101